



January 29, 2016

Department of Conservation
801 K Street, MS 24-02
Sacramento, CA 95814
ATTN: UIC Discussion Draft

RE: Written Comments
DOGGR Pre-rulemaking draft regulations (Dated 1-21-16)
Underground Injection Control (UIC) Program

Dear Sirs:

I have reviewed the above referenced draft regulations and I offer the following comments:

1720.1 Definitions

(a)(1) More information is needed with the phrase *"in which the pressures in the injection zone may cause migration of the injection fluid or the formation fluid out of the intended zone of injection"*. Please add language to describe the physical mechanism(s) contemplated by this phrase.

(e) Enhanced oil recovery (EOR) is also known as "tertiary" recovery and does not encompass assisted recovery, also known as "secondary" recovery. Waterflood is a form of secondary recovery and is not a form of EOR. Suggest that "assisted oil recovery" or "secondary oil recovery" be inserted into the first sentence before 'enhanced oil recovery'. Suggest that in the second sentence, 'steamflood injection' be changed to "steam enhanced oil recovery" to account for the importance of the force of gravity in California's steam injection projects, in addition to viscous forces (flooding).

1724.7 Project Data Requirements

(a)(1)(E) First sentence, suggest that "or" be changed to "and" and that "observation wells" be inserted after "idle".

(a)(1)(E)(ii) Suggest that "pressure observation wells" be added as a well type exempt from this requirement. Idle wells completed in the reservoir under injection can serve as valuable points for important reservoir pressure surveillance.

(a)(1)(G) Suggest that several examples of possible containment assurance issues be added to the end of this section.

1724.7.3 Step Rate Tests

(a)(1)&(2) Describe allowable example methods for determination of permeability.

(b) Describe allowable methods for determination of bottomhole pressure.

1724.10 Filing, Notification, Operating, and Testing Requirements for Underground Injection Projects

(i) Suggest that allowances for pressure drop due to pipe friction be added into the equation.

Sincerely,

Donald G. Nelson, P.E.